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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,651	03/30/2001	Scott J. Tuman	54407USA6B.006	9447
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3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427				
			EXAMINER TSOY, ELENA	
			ART UNIT 1762	PAPER NUMBER

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/822,651	SEIDEL ET AL.	
	Examiner	Art Unit	
	Elena Tsoy	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-48 and 50-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-48 and 50-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1203</u> | 6) <input type="checkbox"/> Other: |

Response to Amendment

1. Request for Reconsideration filed on October 30, 2003 has been entered. Claims 21-48, 50-70 are pending in the application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Rejection of claim 61 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been withdrawn.

The Examiner agrees with the Applicants that the phrase should not be interpreted as “wherein at least one discrete polymeric region comprises a plurality of stems extending from the at least one discrete polymeric regions on the first side of the nonwoven web”.

For examining purposes the phrase was interpreted as recited in claim 61, i.e. “wherein at least one discrete polymeric region comprises a plurality of discrete polymeric regions on the first side of the nonwoven web”.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 21-31, 33-35, 37, 39, 40, 42-48, 50-53, 55** stand rejected under 35 U.S.C. 102(b) as being anticipated by Thomas (US 5,586,371) for the reasons of record as set forth in Paragraph No. 5 of the Office Action mailed on October 16, 2002 (Paper No. 11).

7. **Claims 32, 41, 54** stand rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (US 5,586,371) in view of Murasaki (US 5,643,651) for the reasons of record as set forth in Paragraph No. 8 of the Office Action mailed on October 16, 2002 (Paper No. 11).

8. **Claim 36** stands rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (US 5,586,371) for the reasons of record as set forth in Paragraph No. 9 of the Office Action mailed on October 16, 2002 (Paper No. 11).

9. **Claim 38** stands rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (US 5,586,371) in view of Shepard et al (US 6,205,623) for the reasons of record as set forth in Paragraph No. 10 of the Office Action mailed on March 27, 2003 (Paper No. 14).

10. **Claims 21-26, 28-31, 33, 39, 40, 42-48, 50-53, 55, 57** are rejected under 35 U.S.C. 102(b) as being anticipated by Wessels et al (US 5,669,120) for the reasons of record as set forth in Paragraph No. 11 of the Office Action mailed on July 2003 (Paper No. 18).

The Examiner Note: claim 57 was *accidentally* omitted because the limitation of claim 57 is disclosed in Paragraph No. 11 as the web construction being of composite structure such as shown in Fig. 4, i.e. claim 57 is not allowed as is assumed by Applicants.

11. Rejection of claims 21, 23, 27, 30, 31, 38-40, 44 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cejka et al (US 6,106, 922) has been withdrawn.

12. Rejection of claims 29, 34-37, 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cejka et al (US 6,106, 922) has been withdrawn.

13. **Claims 32, 41, 54** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessels et al (US 5,669,120) in view of further in view of Murasaki (US 5,643,651) for the reasons of record as set forth in Paragraph No. 14 of the Office Action mailed on July 2003 (Paper No. 18).

14. **Claims 34-37** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessels et al (US 5,669,120) for the reasons of record as set forth in Paragraph No. 15 of the Office Action mailed on July 2003 (Paper No. 18).

15. **Claims 40, 42-48, 50-53, 55, 56, 58-70** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessels et al (US 5,669,120) in view of Allen et al (US 5,547,531) for the reasons of record as set forth in Paragraph No. 16 of the Office Action mailed on July 2003 (Paper No. 18).

Response to Arguments

16. Applicants' arguments filed October 30, 2003 have been fully considered but they are not persuasive.

(A) Applicants argue that Thomas does not disclose every element of the rejected claims.

The Examiner respectfully disagrees with this argument. Thomas discloses a web 24 comprising two opposing sides and an indefinite length (See column 5, lines 33-36); a plurality of discrete arrays (polymeric regions) of bases 26 of loops 22 (or rows of bases of hooks 44, See Fig. 2; column 4, lines 46-64) deposited in a liquid state and pressed to a substrate 24 by a backing roll 62, i.e. fused to the substrate 24 (See Fig. 5; column 5, lines 36-58); a plurality of **shanks** 28 extending outwardly from each or couple of arrays of the bases of the loops 22 or hooks 44 (See Figs. 2, 3; column 5, lines 5-11, 36-58). Since according to Thomas **shanks** are **stems** (See column 4, line 53), and each or couple of arrays of the bases of the loops 22 or hooks 44 can be interpreted as discrete polymeric region on the web 24, Thomas does disclose every element of the rejected claims including a plurality of shanks (**stems**) 28 extending from each array (each discrete polymeric region) of the bases 26 of the loops 22.

(B) Applicants argue that Thomas does not explicitly teach that the polymeric materials are fused to the substrate, but rather teaches the bases of the loops or hooks are “deposited” on the substrate.

The Examiner respectfully disagrees with this argument. The specification as filed describes fusing as “depositing” a polymeric material on a substrate in a molten state and pressing into cavities by a roll 56 (See page 8, lines 1-3). Thomas also deposits a polymeric material on a substrate 24 in a **liquid** (molten) state and presses into cavities by a roll 62 (See Fig. 5; column 5, lines 36-58). Therefore, Thomas also fuses a polymeric material to the substrate.

(C) Applicants argue that claims are not anticipated by Wessels et al, since in contrast to claims 21, 40 and 48 reciting polymeric regions fused to a first major side of the web, Wessels et al disclose a molded fastener wherein a synthetic resin *encapsulates* the substrate as shown in Figs. 4A-4F.

This is not found persuasive because the “encapsulation” in Wessels et al achieves polymeric regions fused to a first major side of the web. It is irrelevant that this result is achieved through encapsulation because claims 21, 40 and 48 are *product claims* which do not recite negative limitation that the web should not have polymeric regions fused to other side of the web.

It is held that determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

(D) Applicants argue that claims 32, 41 and 54 are not prima facie obvious over combination of Thomas and Murasaki because the Office Action equates the loops of Thomas with stems and then combines the actual hook or stem fasteners of Murasaki to reach the claimed invention.

The Office Action does not equate the loops of Thomas with stems. Each loop or hook in Thomas has a base portion, a stem portion and upper portion.

(E) Applicants argue that claim 38 is not obvious over Thomas in view of Shepard et al because a proper prima facie case of obviousness would require some reasonable expectation of success for the asserted modification and also would require some discussion how one would modify Thomas to provide mushroom shaped fasteners.

Shepard et al teach that either hook- or mushroom-shaped hook components may be used with **loop** components (See column 2, lines 18-24; column 6, lines 47-48). Therefore, one of ordinary skill in the art at would have reasonable expectation of success in using mushroom-shaped hook components with loop components of Thomas.

Mushroom-shaped hook components are conventional and well known in the art. Clearly, Shepard et al do not even discuss how to make mushroom-shaped hook components because it would be within the level of ordinary skill in the art.

(F) Applicants argue that claims 32, 41 and 54 are not prima facie obvious over combination of Wessels et al and Murasaki because Wessels et al do not teach or suggest each and every element of claims 21, 40 and 48, and Murasaki cannot remedy this deficiency.

As was discussed above, Wessels et al do teach each and every element of claims 21, 40 and 48. Wessels et al fail to teach that the plurality of stems is oriented in multiple directions.

Murasaki teaches that a plurality of stems oriented at an angle that is not normal to the plane of the web in multiple directions provides a fastener with no directivity in engaging strength (See column 7, lines 53-56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made a hook material of a fastener in Wessels et al having stems that are angled in multiple directions with the expectation of providing the fastener with no directivity in engaging strength depending on particular use of a final product, as taught by Murasaki.

(G) Applicants argue that claims 40, 42-48, 50-53, 55, 56, 58-70 are not prima facie obvious over combination of Wessels et al and Allen et al because Wessels et al do not teach or suggest each and every element of claims 40 and 48. Also, the Office Action has not identified that Wessels et al teach limitation of claim 56 that discrete polymeric region is *entangled* with a fibrous surface of non-woven web; and the Office Action has failed to identify any motivation to combine the teachings of Wessels et al and Allen et al.

Again, as was discussed above, Wessels et al do teach each and every element of claims 40, 48 and 56.

The Office Action has identified that discrete polymeric region in Wessels et al is entangled with a fibrous surface of the non-woven web in Paragraph 11 by stating that Wessels et al disclose a mechanical fastener for the use in diapers (See column 2, line 4) formed from a web construction comprising a substrate sheet (web) of a coarse *woven* or *knit* (elastic) structure having pores large enough to pass molten resin material throughout its entire area (i.e. entagling), and the hook and loop elements existing mixedly on the one surface of the substrate sheet as plurality of stripes (patches) (See Fig. 4E; column 3, lines 24-37).

Moreover, Applicants stated themselves while traversing Wessels et al that Wessels et al disclose a molded fastener wherein a synthetic resin *encapsulates* the substrate as shown in Figs. 4A-4F. According to specification, a polymer **melt** is *entangled* with a *fibrous* surface of the web forming effective bonding (See page 18, lines 13-14). Clearly, while *encapsulating* a fibrous substrate in Wessels et al a polymer **melt** *entangles* a fibrous surface of the substrate forming effective bonding.

As to motivation to combine, Allen et al teach that a composite female component of the fastening device for the use in diapers (See column 4, lines 6-7) comprising a non-woven fibrous web joined to an elastic backing provides a low cost loop fastening material instead of conventional knit or woven fabric (See Figs. 1, 4; column 1, lines 68; column 2, lines 1-24; column 3, lines 6-12; column 5, lines 46-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a composite female component comprising a non-woven fibrous web joined to an elastic backing instead of a woven or knit web of Wessels et al with the expectation of providing the desired low cost, as taught by Allen et al.

Thus, there is clear motivation to combine Wessels et al with Allen et al.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (571) 272-1429. The examiner can normally be reached on Mo-Thur. 9:00-7:30, Mo-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for all communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elena Tsoy
Examiner
Art Unit 1762



December 16, 2003